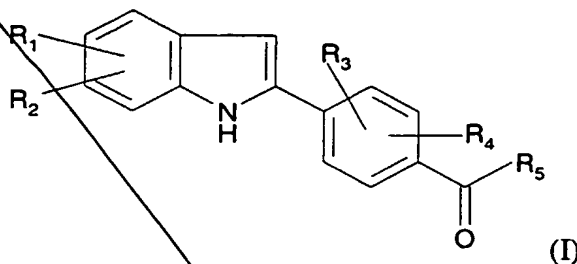


## Claims

1. A compound of formula (I)



or a salt thereof, or a solvate thereof,  
wherein;

$R_1$  and  $R_2$  each independently represents  $C_{1-6}$ alkoxy or halo;

$R_3$  and  $R_4$  each independently represents hydrogen,  $C_{1-6}$ alkoxy, aryl $C_{1-6}$ alkoxy, hydroxy, carboxy $C_{1-6}$ alkoxy, hydroxy $C_{1-6}$ alkoxy, dihydroxy $C_{1-6}$ alkoxy, mono- and di- $(C_{1-6}$ alkyl)amino $C_{1-6}$ alkoxy or amino $C_{1-6}$ alkoxy, and;

$R_5$  represents  $-NR_S R_t$  wherein  $R_S$  and  $R_t$  each independently represent hydrogen, unsubstituted or substituted  $C_{1-6}$ alkyl, or unsubstituted or substituted heterocyclyl.

2. A compound according to claim 1 wherein  $R_1$  and  $R_2$  each independently represents methoxy or chloro.

3. A compound according to claim 1 or claim 2 wherein  $R_1$  is 5-chloro and  $R_2$  is 6-chloro.

4. A compound according to claim 1 wherein  $R_3$  is hydroxy, methoxy, ethoxy, propoxy, benzyloxy, carboxyethoxy, hydroxyethoxy, dihydroxypropoxy, dimethylaminoethoxy or aminopropoxy.

5. A compound according to claim 1 wherein  $R_4$  is hydrogen or methoxy.

6. A compound according to claim 1 wherein  $R_S$  or  $R_t$  represent unsubstituted or substituted  $C_{1-6}$ alkyl, or unsubstituted or substituted heterocyclyl.

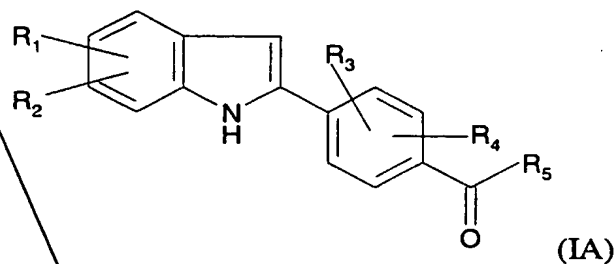
7. A compound according to claim 1 or claim 6 wherein  $R_S$  or  $R_t$  represent 3-[4-(3-methoxyphenyl)piperazin-1-yl]propyl or 3-[4-(2-pyrimidinyl)piperazin-1-yl]propyl.

8. A compound according to claim 1 wherein  $R_S$  or  $R_t$  represent an unsubstituted or substituted piperidinyl group.

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9. A compound according to claim 1 or claim 8 wherein R<sub>5</sub> or R<sub>t</sub> represent a 1,2,2,6,6-pentamethylpiperidin-4-yl group or a 2,2,6,6-tetramethylpiperidin-4-yl group.

5 10. A compound according to claim 1 wherein R<sub>t</sub> is hydrogen.

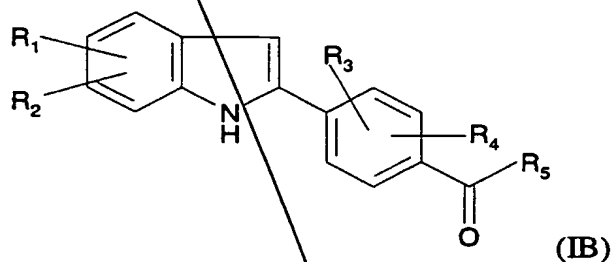
11. A compound of formula (IA)



10 wherein;

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are as defined in formula (I) of claim 1, R<sub>5</sub> is 3-[4-(3-methoxyphenyl)piperazin-1-yl]propyl or 3-[4-(2-pyrimidinyl)piperazin-1-yl]propyl, and R<sub>t</sub> is hydrogen or a salt thereof or a solvate thereof.

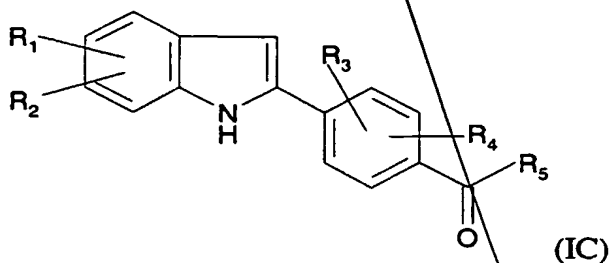
15 12. A compound of formula (IB)



wherein;

20 R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, and R<sub>5</sub> are as defined in formula (I) of claim 1, R<sub>5</sub> is 3-pyridyl or 3-(6-methoxy)pyridyl, and R<sub>t</sub> is hydrogen or a salt thereof or a solvate thereof.

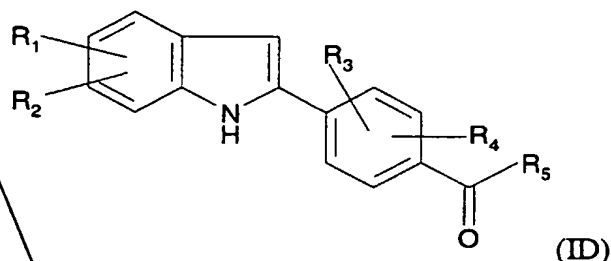
13. A compound of formula (IC)



wherein;

R<sub>2</sub>, R<sub>4</sub>, and R<sub>5</sub> are as defined in formula (I) of claim 1, R<sub>S</sub> is 2,2,6,6-tetramethylpiperidin-4-yl, R<sub>t</sub> is hydrogen, R<sub>3</sub> is 3-ethoxy, and R<sub>1</sub> is 5-chloro or 5-methoxy or a salt thereof or a solvate thereof.

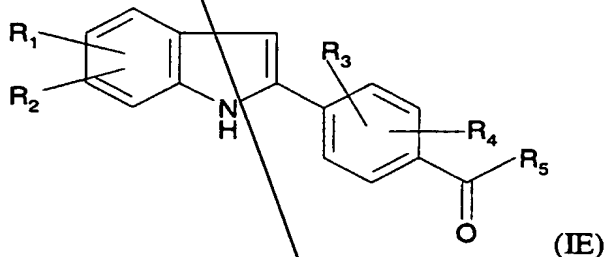
14. A compound of formula (ID)



wherein;

R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub>, and R<sub>5</sub> are as defined in formula (I) of claim 1, R<sub>S</sub> is 2,2,6,6-tetramethylpiperidin-4-yl, R<sub>t</sub> is hydrogen, R<sub>3</sub> is 2-methoxy, 3-methoxy, 3-ethoxy, 3-propoxy, 3-benzyloxy, 3-(2-carboxyethoxy), 3-(2-hydroxyethoxy), 3-(2,3-dihydroxypropoxy), 3-(2-dimethylaminoethoxy) or 3-(3-aminopropoxy) and 3-hydroxy and R<sub>4</sub> is 5-methoxy or hydrogen or a salt thereof or a solvate thereof.

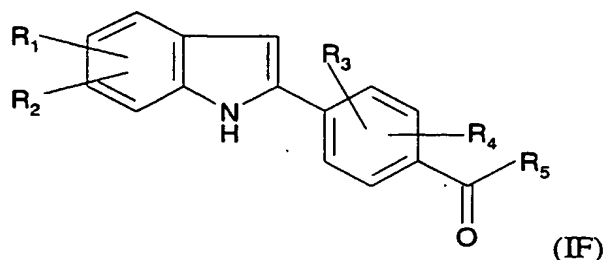
15. A compound of formula (IE)



wherein;

R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub>, and R<sub>5</sub> are as defined in formula (I) of claim 1, R<sub>S</sub> is 1,2,2,6,6-pentamethylpiperidin-4-yl, R<sub>t</sub> is hydrogen, and R<sub>3</sub> is 2-methoxy or 3-ethoxy, and R<sub>4</sub> is 5-methoxy or hydrogen or a salt thereof or a solvate thereof.

16. A compound of formula (IF)



wherein;

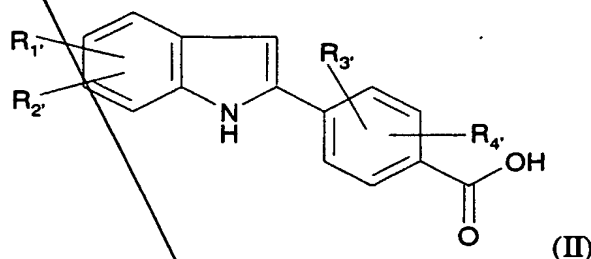
$R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ , and  $R_5$  are as defined in formula (I) of claim 1,  $R_5$  is 1-benzylpiperidin-4-yl, 1-(4-ethoxycarbonyl)butylpiperidin-4-yl, 1-(4-hydroxycarbonyl)butylpiperidin-4-yl and  $R_t$  is hydrogen or a salt thereof or a solvate thereof.

17. A compound selected from the list consisting of:

- 4-(5,6-Dichloro-1H-indol-2-yl)-3-ethoxy-N-(2,2,6,6-tetramethylpiperidin-4-yl)-benzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-3-benzyloxy-N-(2,2,6,6-tetramethylpiperidin-4-yl)-benzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-3-hydroxy-N-(2,2,6,6-tetramethylpiperidin-4-yl)-benzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-3-propoxy-N-(2,2,6,6-tetramethylpiperidin-4-yl)-benzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-N-[3-[4-(3-methoxyphenyl)piperazin-1-yl]propyl]-3-methoxybenzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-N-[3-[4-(2-pyrimidyl)piperazin-1-yl]propyl]-3-methoxybenzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-N-(2,2,6,6-tetramethylpiperidin-4-yl)-3-methoxybenzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-N-(1,2,2,6,6-pentamethylpiperidin-4-yl)-3-ethoxybenzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-N-(3-pyridyl)-3-ethoxybenzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-N-(3-(6-methoxypyridyl))-3-ethoxybenzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-N-(1-benzylpiperidin-4-yl)-3-ethoxybenzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-N-(2,2,6,6-tetramethylpiperidin-4-yl)-2,5-dimethoxybenzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-N-(1,2,2,6,6-pentamethylpiperidin-4-yl)-2,5-dimethoxybenzamide;
- 4-(5-methoxy-6-chloro-1H-indol-2-yl)-N-(2,2,6,6-tetramethylpiperidin-4-yl)-3-ethoxybenzamide;
- 4-(5,6-dichloro-1H-indol-2-yl)-3-methoxy-N-((1-ethoxycarbonylpentyl)piperidin-4-yl)benzamide;

4-(5,6-dichloro-1H-indol-2-yl)-3-methoxy-N-((carboxybutyl)piperidin-4-yl)benzamide;  
 4-(5,6-dichloro-1H-indol-2-yl)-N-(2,2,6,6-tetramethylpiperidin-4-yl)-3-(hydroxycarbonylmethoxy)benzamide;  
 4-(5,6-dichloro-1H-indol-2-yl)-N-(2,2,6,6-tetramethylpiperidin-4-yl)-3-(2-hydroxyethoxy)benzamide;  
 4-(5,6-dichloro-1H-indol-2-yl)-N-(2,2,6,6-tetramethylpiperidin-4-yl)-3-(3-aminopropoxy)benzamide;  
 4-(5,6-dichloro-1H-indol-2-yl)-N-(2,2,6,6-tetramethylpiperidin-4-yl)-3-(2-dimethylaminoethoxy)benzamide, and;  
 4-(5,6-dichloro-1H-indol-2-yl)-N-(2,2,6,6-tetramethylpiperidin-4-yl)-3-(2,3-dihydroxypropoxy)benzamide.

18. A process for the preparation of a compound of formula (I) as defined in claim 1 or a salt thereof or a solvate thereof, which process comprises the amidation of a compound of formula (II)



wherein;

$R_1'$ ,  $R_2'$ ,  $R_3'$ , and  $R_4'$  each respectively represent  $R_1$ ,  $R_2$ ,  $R_3$ , and  $R_4$  as defined in relation to formula (I) or a protected form thereof, with a compound of formula (III)



wherein;

$R_s$  and  $R_t$  each represent  $R_s$  and  $R_t$  as defined in relation to formula (I) or a protected form thereof and thereafter, as necessary, carrying out one or more of the following steps:

- (i) converting one compound of formula (I) into another compound of formula (I);
- (ii) removing any protecting group;
- (iii) preparing a salt or a solvate of the compound so formed.

19. A method for the treatment and/or prophylaxis of diseases associated with over activity of osteoclasts in mammals which method comprises the administration of an effective non-toxic amount of a compound of formula (I) as defined in claim 1, or a pharmaceutically acceptable salt thereof, or a pharmaceutically acceptable solvate thereof.

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20. A method for the treatment of osteoporosis and related osteopenic diseases in a human or non-human mammal, which comprises administering an effective, non-toxic, amount of a compound of formula (I) as defined in claim 1 or a pharmaceutically acceptable salt thereof or a pharmaceutically acceptable solvate thereof, to a human or non-human mammal in need thereof.
21. A method for the treatment of tumours, especially those related to renal cancer, melanoma, colon cancer, lung cancer and leukemia, viral conditions (for example those involving Semliki Forest, Vesicular Stomatitis, Newcastle Disease, Influenza A and B, HIV viruses), ulcers (for example chronic gastritis and peptic ulcer induced by *Helicobacter pylori*), autoimmune diseases and transplantation, for the treatment and/or prevention of hypercholesterolemic and atherosclerotic diseases, AIDS and Alzheimer's disease, angiogenic diseases, such as rheumatoid arthritis, diabetic retinopathy, psoriasis and solid tumours, in a human or non-human mammal, which comprises administering an effective, non-toxic, amount of a compound of formula (I) as defined in claim 1 or a pharmaceutically acceptable salt thereof or a pharmaceutically acceptable solvate thereof, to a human or non-human mammal in need thereof.
22. A compound of formula (I) as defined in claim 1 or a pharmaceutically acceptable salt thereof, or a pharmaceutically acceptable solvate thereof, for use as an active therapeutic substance.
23. A compound of formula (I) as defined in claim 1 or a pharmaceutically acceptable salt thereof or a pharmaceutically acceptable solvate thereof for use in the treatment or prophylaxis of diseases associated with over activity of osteoclasts in mammals.
24. A compound of formula (I) as defined in claim 1 or a pharmaceutically acceptable salt thereof or a pharmaceutically acceptable solvate thereof, for use in the treatment of or prophylaxis of osteoporosis and related osteopenic diseases.
25. A compound of formula (I) as defined in claim 1 or a pharmaceutically acceptable salt thereof or a pharmaceutically acceptable solvate thereof for use in the treatment of tumours, especially those related to renal cancer, melanoma, colon cancer, lung cancer and leukemia, viral conditions (for example those involving Semliki Forest, Vesicular Stomatitis, Newcastle Disease, Influenza A and B, HIV viruses), ulcers (for example chronic gastritis and peptic ulcer induced by *Helicobacter pylori*), autoimmune diseases and transplantation, for the treatment and/or prevention of hypercholesterolemic and atherosclerotic diseases, AIDS and Alzheimer's disease, angiogenic diseases, such as rheumatoid arthritis, diabetic retinopathy, psoriasis and solid tumours, in a human or non-human mammal.

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26. A pharmaceutical composition comprising a compound of formula (I) as defined in claim 1 or a pharmaceutically acceptable salt thereof or a pharmaceutically acceptable solvate thereof and a pharmaceutically acceptable carrier therefor.

5 27. Use of a compound of formula (I) as defined in claim 1, or a pharmaceutically acceptable salt thereof, or a pharmaceutically acceptable solvate thereof, for the manufacture of a medicament for the treatment and/or prophylaxis of diseases associated with over activity of osteoclasts in mammals.

10 28. Use of a compound of formula (I) as defined in claim 1, or a pharmaceutically acceptable salt thereof, or a pharmaceutically acceptable solvate thereof, for the manufacture of a medicament for the treatment and/or prophylaxis of osteoporosis and related osteopenic diseases.

15 29. Use of a compound of formula (I) as defined in claim 1, or a pharmaceutically acceptable salt thereof, or a pharmaceutically acceptable solvate thereof, for the manufacture of a medicament for the treatment of tumours, especially those related to renal cancer, melanoma, colon cancer, lung cancer and leukemia., viral conditions (for example those involving Semliki Forest, Vesicular Stomatitis, Newcastle Disease,  
20 Influenza A and B, HIV viruses), ulcers (for example chronic gastritis and peptic ulcer induced by Helicobacter pylori), autoimmune diseases and transplantation, for the treatment and/or prevention of hypercholesterolemic and atherosclerotic diseases, AIDS and Alzheimer's disease, angiogenic diseases, such as rheumatoid arthritis, diabetic retinopathy, psoriasis and solid tumours.